

Impact of service quality and perceived value on post-purchase intention with mediation of customer satisfaction (Case Study: Pharmacies in Tehran, Iran)

Soheila Sardar Donighi¹, Mitra Yousefi²

¹Assistant professor, Department of Management and Social Sciences, Tehran North Branch, Islamic Azad University, Tehran, Iran; ²MSc in Business Management, Department of Management and Social Sciences, Tehran North Branch, Islamic Azad University, Tehran, Iran

Abstract

Service quality is known as a competitive advantage and impacts on customer satisfaction directly because of competitive markets and lack of product differentiation. Knowing the mental image of organization by customers, reveals the strengths and weakness points of organization, adopt strategies and enhance performances. The purpose of this article is investigating the impact of service quality and perceived value on post-purchase intention with mediation of customer satisfaction. For this purpose, two questionnaires were designed according to the SERVQUAL model and effective factors of research variables. These two questionnaires were collected from 384 customers of pharmacies in Tehran city and analysed by structural equation modelling, LISREL software and SPSS software. The results show that service quality and perceived value affect post-purchase intention. Customer satisfaction affects post-purchase intention as a mediator. The share of customer satisfaction is more than the two other variables and the share of service quality is less than perceived value.

Keywords: service quality, perceived value, post-purchase intention, customer satisfaction

Introduction

Customers affect the development and survival of organizations and companies. These days, the importance of customer philosophically causes the organizations to accept and follow the satisfaction of customer. In today markets, the profitability and development of organizations are directly related to the degree of customer satisfaction. One of the important processes in customer satisfaction's cycle is measuring customers' satisfaction of products and services. The degree of customer satisfaction not only shows the success of organizations in achieving their goals, but also can improve the quality of procedure for the supplier organizations. Remaining in competition in the business world has become more challenging and difficult; therefore, organizations try to find new ways for improving their situation. Loyal customers are important because it is believed that they have less incentive to seek an alternative even in the absence of average satisfaction. Researchers have found that quality has a profound impact on customer satisfaction and loyalty; in fact, it is a result of comparison between customer expectations of service and their perceptions after receiving service. Several studies showed that customer satisfaction of services and products is a factor for the willingness or unwillingness of customers to repurchase and other behavioural intentions as recommending to others. It was also found that service quality as one of the most important factors affects the repurchase of organizations. The perceived value is consumer overall assessment of the product desirability and based on customer perception of receipts and expenditures (Zeithaml, 1988). Perceived value is one of the factors which many companies pay special attention to for retaining customers, and has been introduced as an important factor in decision making of customers (Rust & Oliver, 1994).

In the present article, impact of service quality and perceived value on post-purchase intention with mediation of customer satisfaction has been studied. Because of the importance of services in pharmacies, competition requires the attention of managers to enhance service quality and customer satisfaction. So, customer investigation for evaluating the indicators of customer satisfaction, service quality and perceived value is one of the important factors for returning customer and affects the economic success of pharmacy.

Empirical research background

In 2000, a research entitled "Assessing the effects of quality, value, and customer satisfaction on consumer behavioural intentions in service environments" was done by Cronin and colleagues in America. For this purpose, they have designed a model that showed service quality affects service value, customer satisfaction and post-purchase intention. Also, perceived value impacts on customer satisfaction and purchase intention. This study expresses that customer satisfaction has a positive impact on post-purchase intention in future. In 2001, a cross-cultural research entitled "The relationship between service quality and customer satisfaction," was done by Brady and Robertson. Because of the ambiguity between these two concepts in previous researches, they intended to resolve the ambiguities of the relationship between these two concepts. They also wanted to determine that effects of satisfaction and service quality on behavioural outcomes such as loyalty and verbal communication in service environments is similar or in coordination with the provision of services. The results showed that in both Ecuador and the American society, service quality leads to customer satisfaction. This study also showed that service quality is better than customer satisfaction in prediction of changes in behavioural consequences. Another research entitled "The relationships between service quality, perceived value, customer satisfaction and post-purchase intention in mobile value-added services" was studied by Kuo and colleagues in 2009. Results showed that if companies improve their service quality, satisfaction and perceived value increases in customers and this affects post-purchase intention in customers.

In 2002, a research entitled "Customer satisfaction evaluation of after-sales services quality (case study: Xerox Corporation in Isfahan City)" was studied by Ranjbarian and colleagues. They used a questionnaire for collecting data and selected samples by simple random sampling method. The questionnaire was based on the Likert scale. Ten factors that specify service quality, designed by Len Berry and his colleagues and divided into three categories: technical service quality, relationship between staffs and customers and the expenditures of after sale services. The results showed that customers satisfy the dimensions of service quality.

In 2011 a research entitled "Relationship between perceived value, perceived quality, customer satisfaction and post-purchase intention at chain stores in Tehran City" was studied by Ranjbarian and colleagues. The statistical population was customers of Refah, Shahrvand and Etka chain stores in Tehran City. The results showed that in chain stores, perceived quality affects perceived value, customer satisfaction and post-purchase intention. In addition, perceived value affects customer satisfaction and post-purchase intention. Also customer satisfaction affects post-purchase intention and finally, the proposed model effectively explains the relationship between perceived quality, perceived value, customer satisfaction and post-purchase intention in chain stores.

Definition of concepts

Service quality: The measure and direction of the conflict between customer perception of service and his expectation (Alvani & Riahi, 2003).

Customer satisfaction: The pleasure and satisfaction that the customer feels as a result of achieving demands in relation to specific services (Dollavat Varay, 2005).

Perceived value: The consumer overall assessment of the product desirability that is based on customer perception of receipts and expenditures (Zeithaml, 1988).

Post-purchase intention: Intention to repurchase from the same company, according to previous experiences of the customer (Helier et al., 2003).

Conceptual model

This research model shows the impact of service quality and perceived value on post-purchase intention with mediation of customer satisfaction that is according to the Kuo and colleagues model.

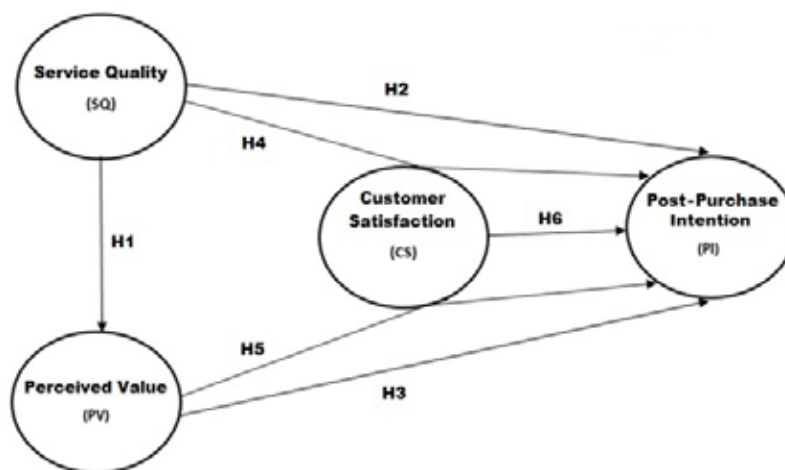


Figure 1: The proposed model based on the model Kuo et al. (2009)

Research hypotheses

1. Service quality affects perceived value.
2. Service quality affects post-purchase intention.
3. Perceived value affects post-purchase intention.
4. Service quality affects post-purchase intention with mediation of customer satisfaction.
5. Perceived value affects post-purchase intention with mediation of customer satisfaction.
6. Customer satisfaction affects post-purchase intention.

Research Methodology

This research is descriptive – correlation by method and it is applied by purpose. The statistical population is all customers who use pharmacies services in Tehran city. The sample size is 384 people and estimated by using Morgan table and they were selected by simple random sampling. The data collection tools are two questionnaires. The first questionnaire is based on the SERVQUAL model. It is a standard questionnaire and has 22 questions that evaluate dimensions of customer satisfaction including tangibles, assurance, reliability, responsiveness and empathy. The second questionnaire is a researcher designed questionnaire and has 19 questions that evaluate other research variables such as service quality, perceived value and post-purchase intention. Validity of the first questionnaire was confirmed by standard questionnaire of SERVQUAL model and validity of the second questionnaire was confirmed by some expert teachers in this field. In this research, discriminating validity has been considered. Variables of every structure of model finally make a reasonable differentiation of measurement. In simple terms, every variable measures only its structures and combines them in such a way that all structures are well separated. By using indicator of AVE, it has been specified that average variance extracted of all structures is higher than 0.5. Indicators of composite reliability (CR) and Cronbach's alpha also were estimated by using the

SPSS software (Table 1). Amount of Cronbach's alpha coefficient is higher than 0.7 for all indicators, so reliability of the questionnaires is confirmed. Data of research were analysed by using LISREL software and using inferential statistics techniques.

Table 1: Indicators of reliability and validity of variables

Hidden variables	AVE	Composite Reliability	Cronbach's alpha
Tangibles	0.713	0.908	0.865
Assurance	0.757	0.925	0.889
Reliability	0.675	0.893	0.840
Responsiveness	0.709	0.924	0.897
Empathy	0.678	0.913	0.881
Customer satisfaction	0.784	0.953	0.948
Post-purchase intention	0.727	0.930	0.911
Perceived value	0.759	0.940	0.920
Service quality	0.613	0.934	0.920

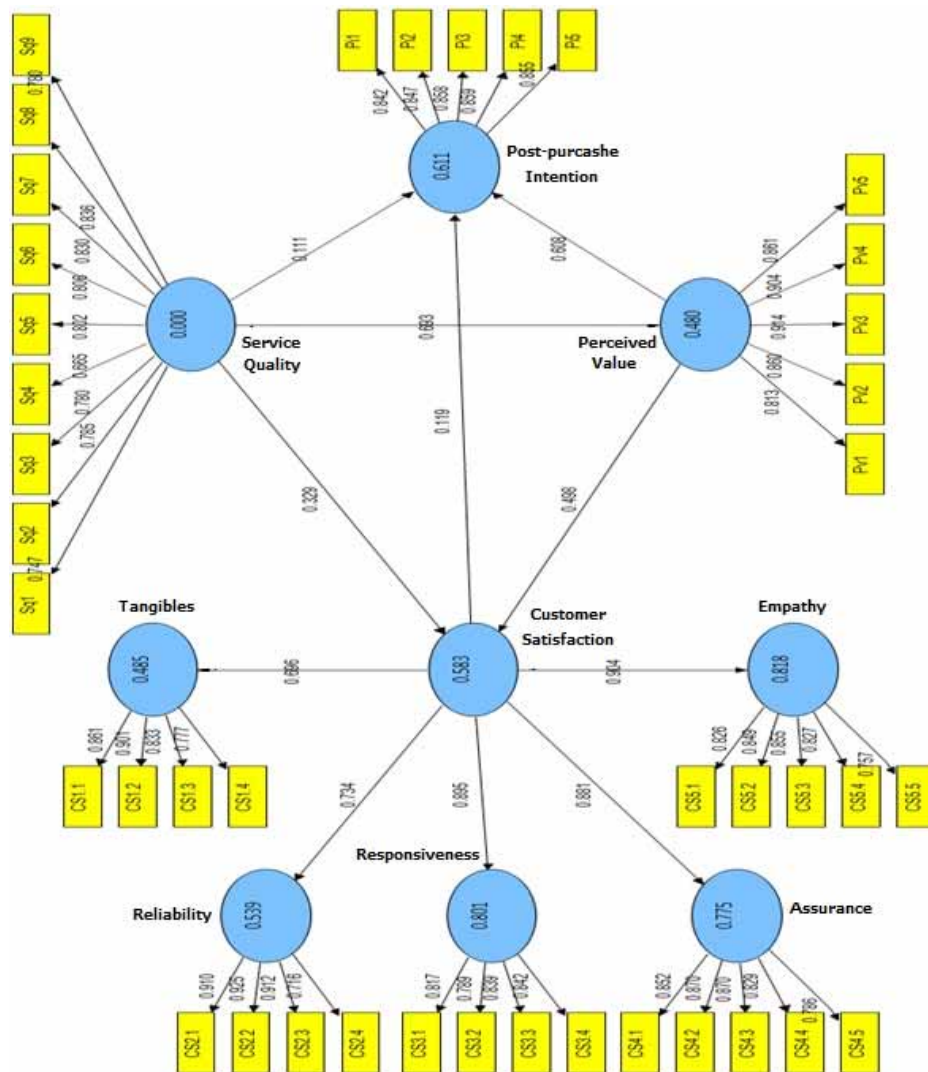


Figure 2: Research Model in state of estimated standardized coefficients

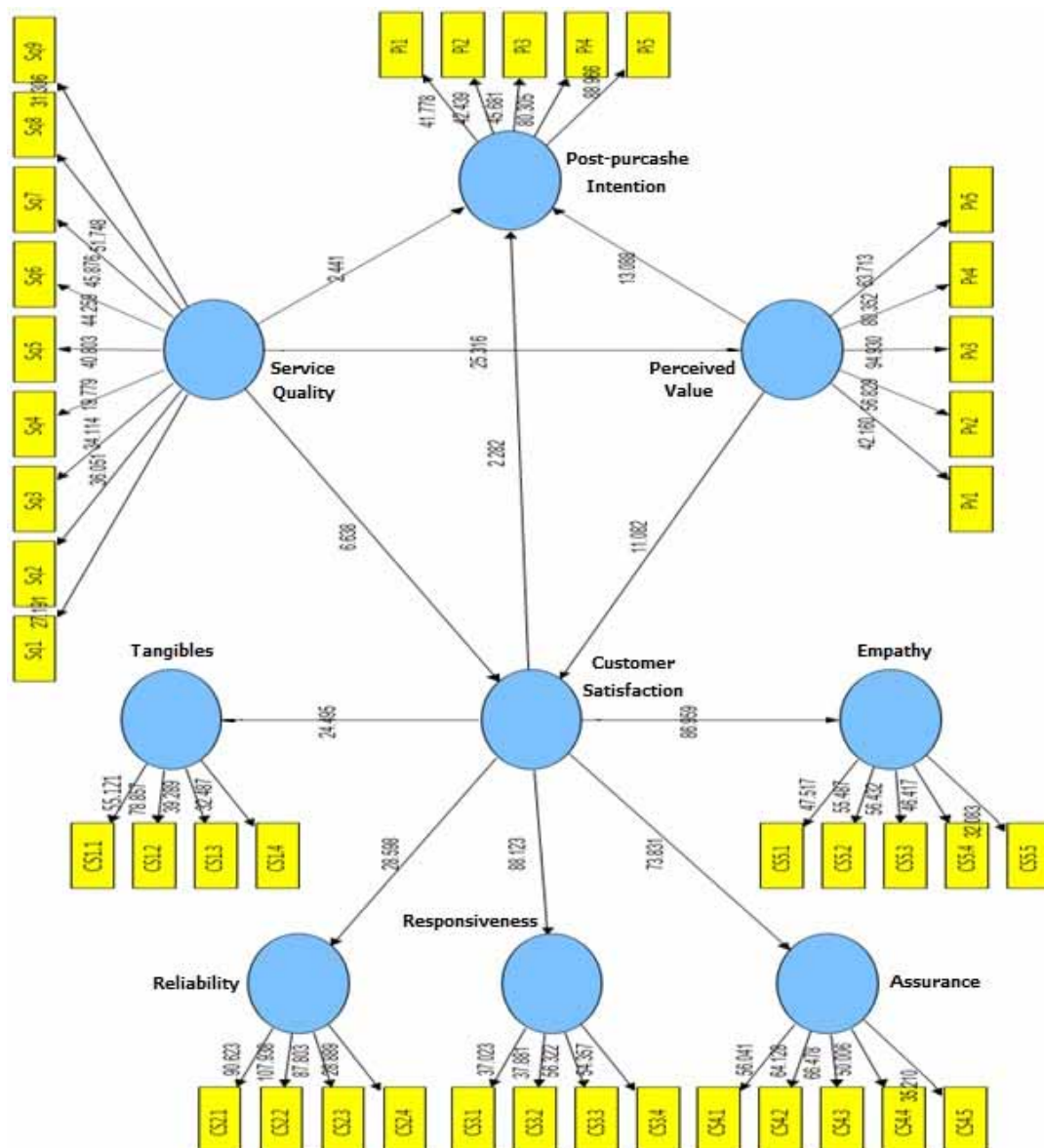


Figure 3: Research Model in state of (t-value) meaning

Table 2: Indicators of Fit Index

Index name	Estimated	allowable range	Reference of allowable range
(Chi-square, the degrees of freedom)	2.735	<3	Kalantari (2009)
Goodness of Fit Index (GFI)	0.86	>0.8	Kalantari (2009)
Adjusted Goodness of Fit Index (AGFI)	0.82	>0.8	Kalantari (2009)
Root Mean Error of Approximation (RMSEA)	0.093	<0.1	Tinsley and Brown (2000)
Comparative Fit Index (CFI)	0.96	>0.9	Kalantari (2009)
Normed Fit Index (NFI)	0.95	>0.9	Bentler and Bonnet (1980)
Non-Normed fit index (NNFI)	0.96	>0.9	Bentler and Bonnet (1980)
Incremental Fit Index (IFI)	0.96	>0.9	Bentler and Bonnet (1980)

As indicators of fit index show in Table 2, data of this research fit factor structure and theoretical substructures of the research. It means that questions are compatible with theoretical constructs.

After validation of the measurement models, research structural model is investigated.

Table 3: Results of structural equation modelling to examine the first equation

Impacts	Independent variables	Beta	t	Coefficient of determination	Status of hypothesis	Direction of impact
Direct	Service Quality -> perceived value	0.693	25.316	0.48	Confirmed	Direct
	Perceived value -> customer satisfaction	0.498	11.082	0.583	Confirmed	Direct
	Service Quality -> Customer Satisfaction	0.329	6.638		Confirmed	Direct
	Service Quality -> post-purchase intention	0.111	2.441	0.611	Confirmed	Direct
	Perceived value -> post-purchase intention	0.608	13.088		Confirmed	Direct
	Customer satisfaction -> post-purchase intention	0.119	2.282		Confirmed	Direct
indirect	Service Quality -> customer satisfaction>post-purchase intention	0.500	22.667	0.262	Confirmed	Direct
	Perceived value -> customer satisfaction>post-purchase intention	0.059	1.601		Rejected	-

According to Table 3 results of structural equation (Direct effects) are as follows:

Hypothesis 1: Service quality affects perceived value.

According to the amount of t-Statistic that is out of significant range (it is more than 1.96) ($p < 0.05$), researcher's assertion "Service quality affects perceived value" is confirmed with the probability of 0.95. According to the positive beta coefficient, it can be said that service quality impacts on perceived value positively and directly. Coefficient of determination is 0.48. Therefore, service quality is able to explain 48% of the variation of perceived value.

Hypothesis 2: Service quality affects post-purchase intention.

According to the amount of t-Statistic that is out of significant range (it is more than 1.96) ($p < 0.05$), researcher's assertion "Service quality impacts on post-purchase intention" is confirmed with the probability of 0.95. According to the positive beta coefficient, it can be said that service quality impacts on post-purchase intention positively and directly.

Hypothesis 3: Perceived value affects post-purchase intention.

According to the amount of t-Statistic that is out of significant range (it is less than -1.96) ($p < 0.05$), researcher's assertion "Perceived value affects post-purchase intention" is confirmed with the probability of 0.95. According to the positive beta coefficient, it can be said that perceived value affects post-purchase intention.

Hypothesis 6: Customer satisfaction affects post-purchase intention.

According to the amount of t-Statistic that is out of significant range (it is less than -1.96) ($p < 0.05$), researcher's assertion "Customer satisfaction affects post-purchase intention" is confirmed with the probability of 0.95. According to the positive beta coefficient, it can be said that customer satisfaction affects post-purchase intention.

Coefficient of determination is 0.61. Therefore, service quality, customer satisfaction and perceived value totally are able to explain 61% of the variation of post-purchase intention.

According to the amount of beta coefficient, the share of customer satisfaction is more than two other variables and the share of service quality is less than perceived value.

According to Table 3 results of structural equation (Indirect effects) are as follows:

Hypothesis 4: Service quality affects post-purchase intention with mediation of customer satisfaction.

According to the amount of t-Statistic that is out of significant range (it is more than 1.96) ($p < 0.05$), researcher's assertion "Service quality affects post-purchase intention with mediation of customer satisfaction" is confirmed with the probability of 0.95. According to the positive beta coefficient, it can be said that service quality impacts on post-purchase intention with mediation of customer satisfaction positively and directly.

Hypothesis 5: Perceived value affects post-purchase intention with mediation of customer satisfaction.

According to the amount of t-Statistic that is among significant range (it is between 1.96 to -1.96), hypothesis 5 "Perceived value affects post-purchase intention with mediation of customer satisfaction" is rejected with the probability of 0.95.

Conclusion

A summary of results is presented here:

- According to the amount of t-Statistic that is out of significant range (it is more than 1.96) ($p < 0.05$), service quality affects perceived value with the probability of 0.95. So service quality is able to explain 48% of the variation of perceived value. The study by Wang and colleagues in 2004 showed that service quality has a direct relationship with perceived value. Also, the study by Turel and Serenko in 2006 showed that service quality has a direct relationship with perceived value. The study by Ibrahim and Mansouri in 2013 in Iran confirmed that service quality affects perceived value.

- According to the amount of t-Statistic that is out of significant range (it is more than 1.96) ($p < 0.05$), service quality affects post-purchase intention with the probability of 0.95. The study by Lee and Lin in 2005 showed that perceived service quality affects post-purchase intention. Also, the study by Ranjbarian and colleagues in 2011 in Iran confirmed that service quality affects post-purchase intention.

- According to the amount of t-Statistic that is out of significant range (it is less than -1.96) ($p < 0.05$), perceived value affects post-purchase intention with the probability of 0.95. The study by Eggert and colleagues in 2002 showed the impact of perceived value on post-purchase intention. Also the study by Petric in 2002 confirmed this hypothesis. In Iran the study by Taghavi Fard and colleagues in 2011 showed that perceived value affects post-purchase intention.

- According to the amount of t-Statistic that is out of significant range (it is more than 1.96) ($p < 0.05$), service quality affects post-purchase intention with mediation of customer satisfaction with the probability of 0.95. The study by Boonajsevee in 2005 showed the relationship between service quality and post-purchase intention with mediating of customer satisfaction. Also, the study by Allameh and Noktehdan in 2009 in Iran confirmed this hypothesis.

- According to the amount of t-Statistic that is among significant range (it is between 1.96 to -1.96), this hypothesis "perceived value affects post-purchase intention with mediation of customer satisfaction" is rejected with the probability of 0.95. The study by Kuo Wu and Deng in 2009 showed the direct relationship between perceived value, customer satisfaction and post-purchase intention.

- According to the amount of t-Statistic that is out of significant range (it is less than -1.96) ($p < 0.05$), customer satisfaction affects post-purchase intention with the probability of 0.95. The

study by Brady and colleagues in 2001, study by Cronin and colleagues in 2000 and study by Collier and colleagues in 2006, totally confirmed that customer satisfaction affects post-purchase intention. The study by Sanayi and colleagues in 2012 in Iran also showed that customer satisfaction affects post-purchase intention.

- According to determination coefficient, service quality, customer satisfaction and perceived value totally are able to explain 61% of the variation of post-purchase intention. According to the amount of beta coefficient, the share of customer satisfaction is more than two other variables and the share of service quality is less than perceived value.

Suggestions

- Since there is a positive and significant relationship between service quality and customer perceived value and also perceived value affects post-purchase intention, it can be suggested that:

- Tools for comfort such as chairs, air conditioners, drinking water and etc must be provided for customers.

- Pharmacy manager must care the cleanliness of staffs and provide facilities for them.

- According to the positive and significant relationship between service quality and post-purchase intention, it can be suggested that:

- When employees have promised for any service, they must do it on time and must guarantee for breach of promise and pay recompense.

- Employees must do tasks and services quicker so that the customers like to repurchase more than before.

- Since there is a positive and significant relationship between perceived value and customer post-purchase intention, it can be suggested that:

- Needs assessment must be done. It is necessary to identify the needs, desires and interests of customers.

- Policies of providing services must be clear and understandable for consumers.

- According to the positive and significant relationship between service quality and post-purchase intention with mediation of customer satisfaction, it can be suggested that:

- Pharmacy manager should consider the system of reward and punishment. So that the employees behave well and be polite to customers.

- Providing various services should be considered by manager and employees must explain how to use products consequently.

- Since there is a positive and significant relationship between customer satisfaction and post-purchase intention, it can be suggested that:

- Selection of employees must be considered, especially the employees who are in direct contact with the customers. Management must employ people who behave with customers properly.

- Training, should be considered in all working life of staffs and be related to duties and activities. It can develop the knowledge and perception of employees.

References

- Allameh, S., & Noktehdan, A., (2009). The effect of service quality on customer loyalty, *Journal of Business Management*, 2, (5), 124-109.
- Alvani, M. & Riahi, B. (2003). *Measuring the quality of services in the public sector*, Training Centre and Industrial Research of Iran press, Tehran.
- Bentler, P. & Bonett, D. (1980). Significance tests and goodness of fit in the analysis of covariance structures, *Psychological Bulletin*, 88.
- Boonajsevee, B. (2005). *Relationship marketing: Loyalty intentions in new era of Thai bank marketing*, Nova Southeastern University.

- Brady, M. & Cronin, J. (2001). New thoughts on conceptualizing perceived service quality: a hierarchical approach, *Journal of Marketing*, 65, 34-49.
- Collier, J. E. & Bienstock, C. C. (2006). Measuring service quality in e-retailing, *Journal of Service Research*, (8), 3, 260-275.
- Cronin, J., Brady, M. & Hult, G. (2000). Assessing the effects of quality, Value and customer satisfaction on consumer behavioral intentions in service environments, *Journal of Retailing*, 76 (2), 193-218.
- Dulawat, M. S. & Rai, R. S. (2005). Satisfaction level of students as a tool for performance measurement, Pressed in Seminar on Strategic Role of HRM in the New Millennium, IPS academy.
- Eggert, A. & Ulaga, W. (2002). Customer perceived value: A substitute for satisfaction in business markets, *Journal of Business and Industrial Marketing*, 17 (2/3), 107-118.
- Hellier, P. K., Geursen, G. M., Carr, R. A. & Rickard, J. A. (2003). Customer repurchase intention: a general structural equation model, *European Journal of Marketing*, 37, 1762-1800.
- Ibrahimi, A. & Mansouri, H. (2013). Effect of service quality, perceived value and customer behavior mood emotion pleasure, *Journal of Management*, 32, 2013.
- Kalantari, K., (2009). Structural equation modeling in socio-economic research, Tehran: Farhange Saba publication.
- Kuo, Y. F., Wu, C. M., & Deng, W. J. (2009). The relationships between service quality, perceived value, customer satisfaction and post-purchase intention in mobile value added services, *Journal of Computers in Human Behavior*, 25, (4), 887-896.
- Lee, G. G. & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping, *International Journal of Retail and Distribution Management*, 33 (2/3), 161-176.
- Petrick, J. F. (2002). Development of a multi-dimensional scale for measuring the perceived value of a service, *Journal of Leisure Research*, 34 (2), 119-134.
- Ranjbarian, B., Abdollahi, S. M. & Khorsandnejad, A. (2011). The Impact of brand equity on advertising effectiveness (case study: Samsung and Snowa brand names), *Interdisciplinary Journal of Contemporary Research in Business*, 3, 5.
- Rust, R. T. & Oliver, R. L. (1994), Service Quality: insights and managerial implications from the frontier, in Rust, R. T. & Oliver, R. L. (Eds), *Service Quality, New Directions in Theory and Practice*, Sage, London, 1-20.
- Sanayei, A., Pvrnstfy Khoshkrud M., Ghazi Monfared, A. & Nasirzadeh, M. (2012). The effect of electronic service quality on customer satisfaction and repurchase intention (Case Study: Electronic payments Enterprise Bank), *Journal of Outlook Business Management*, 12.
- Taghavi Fard, M. T., Masserat, N. & Sanei Monfared., M. A. (2011). This model predicts customer purchasing behavior, *Journal of Business Management*, (3), 10, 2011, 74-55.
- Tinsley, H. E. A. & Brown, S. D. (2000). *Handbook of Applied Multivariate Statistics and Mathematical Modeling*, Academic Press.
- Turel, O. & Serenko, A. (2006). Satisfaction with mobile services in Canada: An empirical investigation, *Journal of Telecommunications Policy*, 30 (5/6), 314-331.
- Wang, Y., Lo, H. & Yang, Y. (2004). An Integrated framework for service quality, customer value, satisfaction, Evidence from china's telecommunications industry, *Journal of Information Systems Frontiers*, 6 (40).
- Zeithaml, V. A. (1988). Customer's perceptions of price quality and value: A means-end model and synthesis of evidence, *Journal of Marketing*, 77, 203-220.